WHAT IS CLAIMED IS:

1. An alignment measuring system for a photolithography process, comprising:

a focusing diode;

a light source emitting light;

a first splitter adapted to direct a part of the light emitted from the light source toward a wafer disposed on a stage, and to direct in a first direction light returned by the wafer;

a second splitter adapted to receive the light from the first splitter, to direct a first portion of the received light in a second direction, to direct a second portion of the received light toward the focusing diode, and to vary respective levels of the first and second portions of the received light in response to an applied control signal;

an image sensor adapted to receive the first portion of the light from the second splitter and to produce a detection signal therefrom; and

a controller adapted to receive the detection signal from the image sensor to determine an alignment state of the wafer, to control the stage so as to align and position the wafer, and to apply the control signal to the second splitter.

2. The system of claim 1, where the control signal

controls the second splitter to increase a power level of the second portion of the light while focusing the system, and controls the second splitter to decrease a power level of the second portion of the light while determining the alignment state of the wafer.

3. The system of claim 2 where the first splitter is adapted to direct the portion of the light emitted from the light source onto an alignment mark on the wafer.

4. The system of claim 1, further comprising a reference mirror disposed along a side of the first splitter, and adapted to receive from the first splitter a second part of the light from the light source.

5. The system of claim 4, wherein the first splitter is adapted to vary respective levels of the first and second parts of the light from the light source, under control of the controller.

6. The system of claim 5, wherein the first splitter is adapted to increase a power level of the second part of the light while focusing the system, to decrease a power level of the second part of the light while determining the alignment state of the wafer.

7. The system of claim 1, wherein the second splitter comprises a liquid crystal display device.

8. The system of claim 1, wherein each of the first and second splitters comprises a liquid crystal display device.

9. The system of claim 1, wherein the second splitter is adapted to rotate in response to the control signal.

10. The system of claim 1, wherein each of the first and second splitters is adapted to rotate under control of the controller.

11. A method of determining an alignment position of a wafer, comprising:

generating light;

directing a part of the generated light toward the wafer disposed on a stage;

directing in a first direction light returned by the wafer;

directing toward an image sensor a first portion of light returned by the wafer, said first portion having a first power level;

directing toward a focusing diode a second portion of

the light returned by the wafer, said second portion having a second power level;

detecting a focus for a positional state of the wafer based in part on a signal produced by the focusing diode in response to the second portion of the light returned by the wafer;

varying a ratio of the first and second power levels in response to an applied control signal;

receiving at the image sensor the first portion of the reflected light; and

producing an alignment detection signal from the first portion of the reflected light received by the image sensor.

12. The method of claim 11, wherein varying the ratio of the first and second power levels comprises decreasing the second power level and increasing the first power level after detecting the focus for the positional state of the wafer, and while determining the alignment state of a wafer.

13. The method of claim 11, wherein detecting a focus for a positional state of the wafer further includes;

directing a second part of the generated light toward a reference mirror; and

providing light reflected from the reference mirror to the focusing diode.

14. The method of claim 13, further comprising varying a ratio of power levels of the first part of the generated light and the second part of the generated light in response to a second applied control signal.

15. The method of claim 14, wherein varying the ratio of the power levels of the first and second parts of the generated light comprises decreasing the power level of the second part and increasing the power level of the first part after detecting the focus for the positional state of the wafer, and while determining the alignment state of a wafer.

16. The method of claim 11, wherein varying a ratio of the first and second power levels in response to an applied control signal comprises turning on and off a liquid crystal display device in an optical path of the light returned by the wafer, in response to the applied control signal.

17. The method of claim 11, wherein varying a ratio of the first and second power levels in response to an applied control signal comprises rotating a mirror in an optical path of the light returned by the wafer, in response to the applied control signal.